

REMARKS

Claims 1, 5, 6, 9 and 10 are pending in this application. By this Amendment, claims 1, 5 and 6 are amended, claims 9 and 10 are added and claims 3, 4 and 8 are canceled. No new matter is added.

Applicant appreciates the courtesies shown to Applicant's representative by Examiner Laio in the October 23, 2009 personal interview. Applicant's separate record of the substance of the interview is incorporated into the following remarks.

Claims 1 and 6 are rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. The rejection is respectfully traversed.

The Office Action alleges that the term "fine" is relevant and therefore indefinite. As discussed during the personal interview, Applicant does not agree that "fine" is indefinite because "fine" is a term of art that would be understood by one of ordinary skill in the art. Therefore, one of ordinary skill in the art would know the definition and identify its function in a porous layer on a substrate of a fuel cell.

It is respectfully requested that the rejection be withdrawn.

Claim 5 is objected to for reciting an electrode adjacent disposed adjacent to the porous layer. Claim 5 has been amended to delete the first recitation of "adjacent" as suggested in the Office Action.

It is respectfully requested that the objection be withdrawn.

Claims 1, 4, 5 and 6 are rejected under 35 U.S.C. §102(b) over Sturm, U.S. Patent No. 3,480,538. Subject matter from canceled claims 3 and 8 have been incorporated into independent claims 1 and 6, respectively, rendering the rejection moot.

Claims 1, 3, 6 and 8 are rejected under 35 U.S.C. §103(a) over Chisholm et al., U.S. Patent No. 6,468,684, in view of Juda et al., U.S. Patent No. 3,407,095. Claims 3 and 8

have been canceled, rendering their rejection moot. The rejection with respect to independent claims 1 and 6 is respectfully traversed.

Claim 1 recites that the electrolyte includes proton-conductivity and a solid acid. Claim 6 recites similar features. The Office Action alleges that Chisholm teaches a solid acid and further alleges that it would have been obvious to combine Chisholm and Juda. Applicant respectfully disagrees that it would have been obvious to combine Chisholm and Juda.

As discussed during the personal interview, Chisholm teaches a supporting matrix that supports a solid acid. The Office Action cites col. 5, lines 22-26. Chisholm also teaches forming a film containing a solid acid on a base material, and further forming an electrode on the base material. See Chisholm at col. 9, lines 6-18 and Fig. 1. Juda teaches using a hydrogen permeable and palladium-containing layer as an anode electrode.

In Chisholm, the base material does not function as an electrode. Instead, another electrode is formed apart from the base material. Therefore, if Chisholm and Juda were combined, which Applicant does not admit as having been obvious at the time of the invention, the electrode formed apart from the base material would have been replaced by Juda's anode electrode.

Further, as discussed during the personal interview, Chisholm is directed to a solid hydroacid salt electrolyte and Juda (and Sturm) is directed to a fuel cell comprising a liquid electrolyte. Solid electrolytes and liquid electrolytes need to have different characteristics. Accordingly, as agreed during the personal interview, it would not have been obvious for a person of ordinary skill in the art to simply combine a solid electrolyte and a liquid electrolyte because there is no motivation for combining the two.

Claim 5 is patentable by reason of its dependency from independent claim 1, as well as for the additional features it recites.

It is respectfully requested that the rejection be withdrawn.

Claims 9 and 10 are patentable by reason of their dependency from independent claims 1 and 6, as well as for the additional features they recite.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable consideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachment:

Petition for Extension of Time

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